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PRE-APPEAL BRIEF REQUEST FOR REVIEW	Docket Number (Optional) DOL11505US

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to "Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450" [37 CFR 1.8(a)] on _____ Signature_____ Typed or printed name _____	Application Number 10/591,374	Filed 08/31/2006
	First Named Inventor Mark Franklin Davis	
	Art Unit 2626	Examiner Greg Borsetti

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).
    Note: No more than five (5) pages may be provided.

I am the

☐ applicant/inventor.

☐ assignee of record of the entire interest.
See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed.
(Form PTO/SB/96)

☑ attorney or agent of record. Registration number 24,815

☐ attorney or agent acting under 37 CFR 1.34.

Registration number if acting under 37 CFR 1.34 _____

/Thomas A. Gallagher/
Signature

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Typed or printed name

415-989-5430
Telephone number

January 21, 2011
Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required.
Submit multiple forms if more than one signature is required, see below*.

☑ *Total of five (5) forms are submitted.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Mark Franklin Davis		
Serial No.:	10/591,374	Examiner:	Borsetti, Greg
Filing Date:	08/31/2006	Art Unit:	2626
Title:	Multichannel Audio Coding	**Reasons Accompanying Pre-Appeal Brief**	
		Request for Review	
Conf. No.	8002		

January 21, 2011

Commissioner for Patents
P.O. Box 1450
5   Alexandria, VA 22313-1450

Certificate of Transmission

I certify that this "Reasons Accompanying Request for Pre-Appeal Brief Review" and enclosed materials, including PTO/SB/21, PTO/SB/22, PTO/SB/31, PTO/SB/33, and PTO-2038, are being facsimile transmitted to the USPTO addressed to Mail Stop AF, Commissioner for
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/Thomas A. Gallagher/

Thomas A. Gallagher

In accordance with the provisions of the Pre-Appeal Brief Conference Pilot Program announced in the OG Notices of 12 July 2005 and the Extension of the Pilot Pre-Appeal Brief
15   Conference Program dated January 10, 2006, applicant hereby submits the following reasons. The Pre-Appeal Brief Request for Review on Form PTO/SB/33 accompanies these reasons.

Reasons Accompanying Pre-Appeal Brief Request for Review begin on page 2 and consist of a total of five (5) pages.

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Claims 63 through 74 are pending in the application. Claim 63 is an independent claim from which the remaining claims depend.

<p align="center">*The Rejections under 35 U.S.C. § 101*</p>

The Office Action states two grounds of rejection of claims 63-74 under 35 USC § 101.

5   See numbered paragraphs 8 and 9 at pages 2 and 3 of the Office Action.

The first ground of rejection under 35 USC § 101 makes reference to the "Machine or Transformation (MoT) test" and to the "35 U.S.C. 101 Interim Guidelines (with emphasis of the Clarification of 'processes' under 35 USC 101)". [In a telephone call with the undersigned attorney on December 9, 2010, Examiner Borsetti confirmed that this reference is intended to be

10   a reference to the July 27, 2010 "Interim Bilski Guidance".] The paragraph 8 rejection concludes: "None of the recited method steps have or require a machine for performing the step and one of ordinary skill in the art could have performed the method without the use of a machine. Furthermore, the claims do not provide a statutory transformation." Thus, the paragraph 8 rejection under 35 USC § 101 is based solely on the Machine or Transformation test.

15   No other reasons for rejection under 35 USC § 101 are given.

In applying the Machine or Transformation test as the sole basis in the paragraph 8 rejection, the Office Action fails to state a *prima facie* rejection. The rejection is clearly in error in view of *Bilski v. Kappos*, 561 U.S. ____ (2010) (*Bilski*) which held that "[t]he machine-or-transformation test is not the sole test for deciding whether an invention is a patent-eligible

20   'process.'" (Slip op. at 8)

The second ground of rejection under 35 USC § 101 rejects the claims "for being solely directed to a mathematical algorithm without a practical application" saying that "[t]he claimed spatial decoding does nothing more than manipulate the abstract audio signals." The rejection refers to and quotes a portion of MPEP 2106.02:

25   If the "acts" of a claimed process manipulate only numbers, abstract concepts or ideas, or signals representing any of the foregoing, the acts are not being applied to appropriate subject matter. *Gottschalk v. Benson*, 409 U.S. 63, 71-72, 175

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USPQ 673, 676 (1972). Thus a process consisting solely of mathematical operations, i.e., converting one set of numbers into another set of numbers, does not manipulate appropriate subject matter and thus cannot constitute a statutory process.

5   The second ground of rejection fails to state a *prima facie* rejection. The rejection is clearly wrong in concluding, without stating reasons, that the claims are solely directed to a mathematical algorithm without a practical application. *Benson* involved a "pure" algorithm— the claims were directed to converting binary-coded decimal numerals into pure binary code. Clearly, applicant's claims are not directed to a pure algorithm—they do not convert one set of

10 numbers into another set of numbers; they are directed to a method for generating a multichannel audio output signal in response to encoded audio channels and spatial parameters. The rejection wrongfully ignores the claims' practical application in concluding that "[t]he claimed spatial decoding does nothing more than manipulate the abstract audio signals."

     Applicant's claims do not "manipulate only numbers, abstract concepts or ideas", nor do

15 they manipulate signals representing "numbers, abstract concepts or ideas" (as per the quoted portion of MPEP 2106.02). They manipulate audio signals to achieve a result that has a practical application. The present situation is analogous to that in *Research Corporation Technologies, Inc. v. Microsoft Corporation*, ___ F.3d___ (Fed. Cir. 2010) (Appeal 2010-1037, December 8, 2010) (*RCT*) in which the court states:

20   Borrowing from the reasoning in the Supreme Court in *Diehr*, this court observes that the patentees here "do not seek to patent a mathematical formula. Instead, they seek patent protection for a process of" halftoning in computer applications. [citing *Diamond v. Diehr*, 450 U.S. 175 (1981).] (Slip op. at 16)

     Although applicant's claims are patent-eligible subject matter in view of MPEP 2106.02

25 for the reasons set forth just above, in applicant's view neither the first nor the second rejections under 35 USC § 101 are based on the correct law. In *Bilski*, the Supreme Court finds that its "precedents provide three specific exceptions to §101's broad patent-eligibility principles: 'laws of nature, physical phenomena, and abstract ideas.' " (Slip op. at 5). The Court focuses on the

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abstract ideas exception, saying that "the Court resolves this case narrowly on the basis of this Court's decisions in *Benson*, *Flook*, and *Diehr*, which shows that petitioners' claims are not patentable processes because they are attempts to patent abstract ideas." (Slip op. at 13). Analyzing *Diehr*, the Court says: "*Diehr* explained that while an abstract idea, law of nature, or

5   mathematical formula could not be patented, 'an *application* of a law of nature or mathematical formula to a known structure or process may well be deserving of patent protection." [emphasis in the original] [citing *Diehr* at 187] (Slip op. at 14)

In *RCT*, citing *Bilski*, *Diehr*, and *Chakrabarty*, the Federal Circuit notes that "[t]he Supreme Court has articulated only three exceptions to the Patent Act's broad patent-eligibility

10   principles: 'laws of nature, physical phenomena, and abstract ideas." (Slip op. at 13). Thus, the court first determines that the subject matter is a "process", qualifying under both the categorical language of section 101 and the process definition in section 100. Then it proceeds to examine the Supreme Court's three exceptions. There being no question of the invention being directed to a law of nature or physical phenomena, the court turns to abstractness. Noting that "[t]he

15   Supreme Court did not presume to provide a rigid formula or definition for abstractness", the Federal Circuit stated that "this court also will not presume to define 'abstract' beyond the recognition that this disqualifying characteristic should exhibit itself so manifestly as to override the broad statutory categories of eligible subject matter and the statutory context that directs primary attention on the patentability criteria of the rest of the Patent Act." (Slip op. at 14).

20   In *RCT*, the patents at issue claim methods for rendering a halftone image of a digital image by comparing, pixel by pixel, the digital image against a blue noise mask. The court observes that "[t]he invention presents functional and palpable applications in the field of computer technology" and "notes that inventions with specific applications or improvements to technologies in the marketplace are not likely to be so abstract that they override the statutory

25   language and framework of the Patent Act." (Slip op. at 15).

The Federal Circuit continues in *RCT*:

> This court also observes that the claimed methods incorporate algorithms and formulas that control the masks and halftoning. These algorithms and formulas,

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even though admittedly a significant part of the claimed combination, do not bring this invention even close to abstractness that would override the statutory categories and context. The Supreme Court has already made abundantly clear that inventions incorporating and relying upon even "a well known mathematical

5   equation" do not lose eligibility because "several steps of the process [use that] mathematical equation." [Citing *Diehr*, 450 U.S. at 185] (Slop op. at 15)

Analogous to *RCT*, the subject matter of the present claims (a method for generating a multichannel audio output signal in response to encoded audio channels and spatial parameters) has specific application to audio technology in the marketplace. As in RCT, the present

10   invention is not even close to abstractness that would override the statutory categories and context.

The Rejections under 35 USC § 102(a) and § 103(a)

Claim 63 stands rejected as being anticipated by Faller et al ("Binaural Cue Coding—Part II: Schemes and Applications") (Faller) under 35 U.S.C. 102(a). Because the remaining claims

15   64-74 depend from claim 63, it is sufficient to demonstrate claim 63 is not anticipated by Faller.

In applicant's view, claim 63 clearly does not read on Faller. As explained below, the Office Action misinterprets Faller in concluding that the claim is anticipated.

1. Claim 63 provides "at least one of said N audio signals is a correlated signal derived from a weighted combination of at least two of said M encoded audio channels". In response,

20   the Office Action refers to and quotes from a passage at page 525, column 2 of Faller. The passage quoted relates to measuring the correlation between input signals to determine one of the spatial parameters, the IC (interaural correlation) or ICC (inter-channel correlation) parameter. Determining this spatial parameter has nothing to do with generating a correlated signal which is derived from a weighted combination of at least two of the M encoded audio channels.

25   Consequently, Faller does not anticipate claim 63.

2. Claim 63 provides:

> step c) includes deriving at least one uncorrelated signal from said at least one correlated signal, and controlling the proportion of said at least one correlated

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signal to said at least one uncorrelated signal in at least one channel of said multichannel output signal in response to one or ones of said spatial parameters, wherein said controlling is at least partly in accordance with said first parameter.

In response, the Office Action refers to page 530, column 1 of Faller. However, Faller is
5   not responsive to this claim passage. In particular,

         a) Faller does not disclose deriving an uncorrelated signal from the correlated signal (the closest Faller comes is mentioning that some recordings have a high amount of uncorrelated reverberation, and that the ICC parameter can be use to restore diffuse reverb); and

10   b) Faller does not disclose controlling the proportion of correlated to uncorrelated signal using the spatial parameters (again, the closest Faller comes is his mention that it is desirable to use ICC cues to restore diffuse reverberation).

Differences between Faller and applicant's claim 63 may be clarified further by considering the BCC synthesis described in Faller in Section II.B starting on page 523 column 1.
15   As seen from figure 5, to generate each output signal, a weighting factor is applied to each subband of the mono input signal. The weighting factors are determined from the spatial parameters (ICLD, ICTD, and ICC). No "uncorrelated signal is ever derived" and the output is not a combination of correlated and uncorrelated signals controlled in response to the spatial parameter.

20   *Conclusion*

       In view of the present arguments, this Pre-Appeal Brief Request for Review should be granted and the application should be passed to allowance.

Respectfully submitted,

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